Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (Canceled)

2. (Previously Presented) The method according to Claim 6, wherein the gripping mechanism is arranged on the robot unit in such a way that a further horizontal motion, which overlays transfer along the horizontal beam, can be achieved.

3. (Canceled)

4. (Canceled)

5. (Previously Presented) The method according to Claim 6, wherein the pre-programmed path is programmed by an operator's actually transferring the gripping mechanism through a work cycle, and wherein successive registration of desired values is programmed in with respect to the rotor units forming part of the said motors, so that the control computer, through communication with a registration unit, can subsequently ensure automatic operation.

6. (Currently Amended) A method for rapidly transferring a work object in both horizontal and vertical directions, the method comprising:

providing a robot unit having a gripping mechanism;

providing a first workstation and a second workstation between which to transfer the work object, the work object weighing between one kilo and forty kilos, and the transfer in the

horizontal direction being at least one meter but less than ten meters and at least partially being effected along an essentially horizontally extending beam;

arranging the gripping mechanism such that, at least in a first end situation along the beam, the gripping mechanism can collect the work object in a first position situated beyond the first end situation along the beam,

controlling the robot unit with a control unit;

driving the robot unit with a belt member and at least two motors having rotor units connected to drive wheels for the belt member;

immovably arranging the at least two motors in relation to the first and second workstations;

effecting transfer of the work object without displacement of either of the at least two motors;

executing the entire transfer of the work object along the beam;

providing the belt member as a single continuous drive belt, which, at the same time, is connected to and driven by the drive wheels; and

guiding the transfer of the work object along a pre-programmed path using a control computer in the control unit, through continuous control and registration of the situation of each of the rotor units of the motors,

wherein the gripping mechanism moves along the beam and is arranged with at least two gripping units, a first gripping unit collecting the work object from the first position and a second gripping unit depositing the work object in a second position beyond a second end situation

along the beam, each of the first and second gripping units collecting and placing objects simultaneously with the other unit,

wherein an intermediate storage for change of place of the work object is effected before the work object is transferred from the first position to the second position,

wherein the first gripping unit collects the work object from the first position and deposits the work object at the intermediate storage, and the second gripping unit collects the work object from the intermediate storage and deposits the work object in the second position, and

wherein transfer of the work object in the horizontal direction is unobstructed by the robot unit,

the robot unit comprising:

a first beam unit extending between two end points and the first and the second workstation, wherein the first beam unit is the essentially horizontally extending beam;

a slide which is arranged movably along the first beam unit, wherein the slide defines a vertical opening, and wherein the slide comprises a first pair of opposing guide rollers on a first side of the vertical opening and a second pair of opposing guide rollers on a second side of the vertical opening opposite to the first side of the vertical opening;

a second beam unit which extends essentially perpendicular to the first beam unit and which is arranged movably on the slide, wherein the second beam unit moves

vertically within the vertical opening, and wherein the first and second pairs of opposing guide rollers contact the second beam unit;

the gripping mechanism arranged on one end of the second beam unit, wherein the gripping mechanism includes the first and a second gripping unit, the units capable of simultaneously picking up separate objects; and

the at least two drive motors, which are connected to the control unit, a number of deflection rollers, and the belt member,

wherein the belt member is in the form of a single continuous drive belt which runs around the drive wheels of the drive motors and the deflection rollers and is fastened to the one end of the second beam unit, and

wherein the gripping mechanism reaches end points placed beyond the two end points of the horizontal beam, and

wherein the control unit is connected to an operator panel through which the control computer in the control unit can continuously be re-programmed by manually controlling the gripping mechanism to move into chosen situations,

wherein the belt member is disposed in between the first and second pairs of opposing guide rollers.

7. (Currently Amended) The ~~robot unit~~ method according to Claim 6, wherein the gripping mechanism comprises an elongated member.

8. (Currently Amended) The ~~robot unit~~ method according to Claim 7, wherein the elongated member, at its one end, is arranged with the first gripping unit and, at its other end, is arranged with the second gripping unit, the elongated member extending in the same longitudinal direction as the said first beam unit, such that the elongated member can simultaneously pick a first object at its one end from the first position and a second object at its other end from the intermediate storage.

9. (Currently Amended) The ~~robot unit~~ method according to Claim 6, wherein, between the first and second workstation, an intermediate table is arranged for intermediate storage of the work object.

10-20. (Canceled)

21. (Currently Amended) An apparatus for transferring work objects in both horizontal and vertical directions between a first workstation and a second workstation, comprising:

a first beam unit disposed between the first workstation and the second workstation, wherein the first beam unit is essentially horizontal, wherein the first workstation is disposed beyond a first end of the first beam unit, the second workstation is disposed beyond a second end of the first beam unit, and an intermediate station is disposed between the first workstation and the second workstation;

a slide movably mounted on the first beam unit, wherein the slide has at least two deflection rollers, wherein the slide defines a vertical opening, and wherein the slide comprises a first pair of opposing guide rollers on a first side of the vertical opening and a second pair of

opposing guide rollers on a second side of the vertical opening opposite to the first side of the vertical opening;

a second beam unit that is essentially perpendicular to the first beam unit and is movably mounted on the slide, wherein a first end of the second beam unit has at least one deflection roller, wherein the second beam unit moves vertically within the vertical opening, and wherein the first and second pairs of opposing guide rollers contact the second beam unit;

a gripping mechanism mounted on a second end of the second beam unit that is opposite the first end, wherein the gripping mechanism includes a first gripping unit and a second gripping unit spaced apart from each other, wherein the first gripping unit is adapted to pick up a first work object from the first workstation while the second gripping unit simultaneously picks up a second work object from the intermediate station, and wherein the first gripping unit is adapted to release the first work object at the intermediate station while the second gripping unit simultaneously releases the second work object at the second workstation;

at least two stationary drive motors; and

a belt member routed around the at least two deflection rollers on the slide and the at least one deflection roller on the second beam unit, wherein the belt member is attached at its two ends to the second end of the second beam unit, and wherein the belt member is driven by the at least two stationary drive motors, such that the belt member displaces the slide along the first beam unit and raises and lowers the second beam unit,

wherein the belt member is disposed in between the first and second pairs of opposing guide rollers.

22. (Canceled)

23. (Currently Amended) ~~The robot unit of claim 6,~~ A method for rapidly transferring a work object in both horizontal and vertical directions, the method comprising:

providing a robot unit having a gripping mechanism;

providing a first workstation and a second workstation between which to transfer the work object, the work object weighing between one kilo and forty kilos, and the transfer in the horizontal direction being at least one meter but less than ten meters and at least partially being effected along an essentially horizontally extending beam;

arranging the gripping mechanism such that, at least in a first end situation along the beam, the gripping mechanism can collect the work object in a first position situated beyond the first end situation along the beam,

controlling the robot unit with a control unit;

driving the robot unit with a belt member and at least two motors having rotor units connected to drive wheels for the belt member;

immovably arranging the at least two motors in relation to the first and second workstations;

effecting transfer of the work object without displacement of either of the at least two motors;

executing the entire transfer of the work object along the beam;

providing the belt member as a single continuous drive belt, which, at the same time, is connected to and driven by the drive wheels; and

guiding the transfer of the work object along a pre-programmed path using a control computer in the control unit, through continuous control and registration of the situation of each of the rotor units of the motors,

wherein the gripping mechanism moves along the beam and is arranged with at least two gripping units, a first gripping unit collecting the work object from the first position and a second gripping unit depositing the work object in a second position beyond a second end situation along the beam, each of the first and second gripping units collecting and placing objects simultaneously with the other unit,

wherein an intermediate storage for change of place of the work object is effected before the work object is transferred from the first position to the second position,

wherein the first gripping unit collects the work object from the first position and deposits the work object at the intermediate storage, and the second gripping unit collects the work object from the intermediate storage and deposits the work object in the second position, and

wherein transfer of the work object in the horizontal direction is unobstructed by the robot unit,

the robot unit comprising:

a first beam unit extending between two end points and the first and the second workstation, wherein the first beam unit is the essentially horizontally extending beam;

a slide which is arranged movably along the first beam unit, wherein the slide defines a vertical opening, and wherein the slide comprises a first pair of opposing guide

rollers on a first side of the vertical opening and a second pair of opposing guide rollers on a second side of the vertical opening opposite to the first side of the vertical opening;

a second beam unit which extends essentially perpendicular to the first beam unit and which is arranged movably on the slide, wherein the second beam unit moves vertically within the vertical opening, and wherein the first and second pairs of opposing guide rollers contact the second beam unit;

the gripping mechanism arranged on one end of the second beam unit, wherein the gripping mechanism includes the first and a second gripping unit, the units capable of simultaneously picking up separate objects; and

the at least two drive motors, which are connected to the control unit, a number of deflection rollers, and the belt member,

wherein the belt member is in the form of a single continuous drive belt which runs around the drive wheels of the drive motors and the deflection rollers and is fastened to the one end of the second beam unit, and

wherein the gripping mechanism reaches end points placed beyond the two end points of the horizontal beam, and

wherein the control unit is connected to an operator panel through which the control computer in the control unit can continuously be re-programmed by manually controlling the gripping mechanism to move into chosen situations,

wherein the slide further comprises:

a third pair of opposing guide rollers on the first side of the vertical opening in the same vertical plane as the first pair of opposing guide rollers and vertically offset from the first pair of opposing guide rollers; and

a fourth pair of opposing guide rollers on the second side of the vertical opening in the same vertical plane as the second pair of opposing guide rollers and vertically offset from the second pair of opposing guide rollers,

wherein the third and fourth pairs of opposing guide rollers contact the second beam unit.

24. (Canceled)

25. (Currently Amended) The apparatus of claim 21, wherein, when the second beam unit is viewed in cross section, the first pair of opposing guide rollers contacts a first distal end of the second beam unit and the second pair of opposing guide rollers contacts a second distal end of the second beam unit opposite to the first distal end.

26. (Currently Amended) ~~The apparatus of claim 21,~~ An apparatus for transferring work objects in both horizontal and vertical directions between a first workstation and a second workstation, comprising:

a first beam unit disposed between the first workstation and the second workstation, wherein the first beam unit is essentially horizontal, wherein the first workstation is disposed beyond a first end of the first beam unit, the second workstation is disposed beyond a second end

of the first beam unit, and an intermediate station is disposed between the first workstation and the second workstation;

a slide movably mounted on the first beam unit, wherein the slide has at least two deflection rollers, wherein the slide defines a vertical opening, and wherein the slide comprises a first pair of opposing guide rollers on a first side of the vertical opening and a second pair of opposing guide rollers on a second side of the vertical opening opposite to the first side of the vertical opening;

a second beam unit that is essentially perpendicular to the first beam unit and is movably mounted on the slide, wherein a first end of the second beam unit has at least one deflection roller, wherein the second beam unit moves vertically within the vertical opening, and wherein the first and second pairs of opposing guide rollers contact the second beam unit;

a gripping mechanism mounted on a second end of the second beam unit that is opposite the first end, wherein the gripping mechanism includes a first gripping unit and a second gripping unit spaced apart from each other, wherein the first gripping unit is adapted to pick up a first work object from the first workstation while the second gripping unit simultaneously picks up a second work object from the intermediate station, and wherein the first gripping unit is adapted to release the first work object at the intermediate station while the second gripping unit simultaneously releases the second work object at the second workstation;

at least two stationary drive motors; and

a belt member routed around the at least two deflection rollers on the slide and the at least one deflection roller on the second beam unit, wherein the belt member is attached at its two

ends to the second end of the second beam unit, and wherein the belt member is driven by the at least two stationary drive motors, such that the belt member displaces the slide along the first beam unit and raises and lowers the second beam unit,

wherein the slide further comprises:

a third pair of opposing guide rollers on the first side of the vertical opening in the same vertical plane as the first pair of opposing guide rollers and vertically offset from the first pair of opposing guide rollers; and

a fourth pair of opposing guide rollers on the second side of the vertical opening in the same vertical plane as the second pair of opposing guide rollers and vertically offset from the second pair of opposing guide rollers,

wherein the third and fourth pairs of opposing guide rollers contact the second beam unit.

27. (Previously Presented) The apparatus of claim 21, wherein the second beam unit is an I-beam having a first flange and a second flange, wherein the first pair of opposing guide rollers contacts the first and second flanges, and wherein the second pair of opposing guide rollers contacts the first and second flanges.

28. (Currently Amended) The apparatus of claim 27, wherein, when the second beam unit is viewed in cross section, a roller of the first pair of opposing guide rollers contacts a first distal end of the first flange and wherein a roller of the second pair of opposing guide rollers contacts a second distal end of the first flange opposite to the first distal end.

29. (Previously Presented) The apparatus of claim 21, wherein the gripping mechanism is unobstructed by the apparatus in the horizontal direction.